The autobiography of her early childhood ("Reminiscences of Childhood"), published last year in a Russian review, is one of the finest productions of modern Russian literature. In 1887 she published in the Swedish review *Norna* the introduction to her novel, "Væ Victis!" And in the last issue of the *Nordisk Tidskrift* she brought out, under the pseudonym of Tanya Rerevski, a fragment of a longer novel, "The Family of Vorontsoffs," which she left in manuscript entirely ready for the printer. In her last letter to the writer of these lines in December last, she spoke of bringing out an English version of this novel, which, though written in Russian, could not be published in her mother country.

It need not be said that so highly gifted a woman as Sophie Kovalevsky was modesty itself. She took the liveliest interest in Swedish intellectual life, and had many friends both in Stockholm and in this country, which she visited last year. She leaves a daughter eleven years old. The Swedish papers speak with the greatest sympathy and regret of *their* professor "Sonya" (the little Sophie) Kovalevsky.

In Mme. Kovalevsky's "Reminiscences of Childhood," she records a fact well worthy of note. She was then about ten years old, staying in her father's house in the country. The house was being repaired, and wall-papers were brought from St. Petersburg; but it so happened that there was no wall-paper for the nursery. So it was papered with the great Ostrogradski's lithographed course upon higher mathematical analysis—a survival of her father's student years; and the little Sophie, who devoured everything printed within her reach, to the despair of her English governess, was continually reading these mathematical dissertations covered with incomprehensible hieroglyphs. "Strangely enough," she says in her memoirs, "when, at the age of sixteen, I began studying the differential calculus, my teacher was astonished at the rapidity with which I understood him—'just as if it was a reminiscence of something that you knew before,' he said. The continual reading of the wall-papers certainly left some unconscious traces in my childish mind."

P. K.

NOTES.

THE Bureau of the International Congress of Geologists has decided that its fifth session shall be held at Washington, and the date of the session has been fixed for the last Wednesday (26th) of August 1891. The annual meeting of the American Association for the Advancement of Science and the summer meeting of the Geological Society of America will be held in the same city during the preceding week. A circular, signed by J. S. Newberry, chairman, and H. S. Williams and S. F. Emmons, secretaries, has been issued, cordially inviting geologists to take part in the labours of the Congress, and, if they desire to do so, to address their request for inscription as members of the Congress to the Secretary's office (1330 F Street, Washington, D.C.). The Committee of Organization will try to obtain from the ocean steamship lines the most favourable terms for the transportation of foreign members to and from the United States, and to arrange with the respective railroad companies for reduced rates for the geological excursions. They point out that, to accomplish this satisfactorily, it is important they should know beforehand the approximate number of members who propose to attend the meeting. They desire also to have an expression of opinion from these members in order to arrange in advance a series of excursions to places that will be of interest to the greatest number. Owing to the large number of points of geological interest, and to the great distances to be traversed, it would be impossible for the Committee to arrange these excursions, so that their expense should fall within reasonable limits, without some such previous information.

IT has been arranged that the afternoon meeting to celebrate the Chemical Society's jubilee, on February 24, at 3 p.m., shall be held in the theatre of the London University, Burlington Gardens, instead of at the Society of Arts, as the number of Fellows who have notified their intention of attending the celebration is larger than can be accommodated in the meeting-room of the Society of Arts. A number of distinguished foreigners are expected to be present—M. Gautier, President; M. Combes, Vice-President; and M. Haller, member of Council of the Société Chimique de Paris; Drs. Wichelhaus and Will, of Berlin, representing the Deutsche Chemische Gesellschaft; and Prof. Victor Meyer, of Heidelberg.

LORD LILFORD AND MR. WILSON NOBLE deserve the thanks of all genuine lovers of nature for calling attention to the scheme whereby an enterprising Birmingham Company proposed to take from the Shetland Islands, during the approaching spring, no fewer than 20,000 eggs, including "many beautiful and rare varieties." A question on the subject was asked in the House of Commons on Tuesday by Mr. W. James, in reply to whom the Lord Advocate suggested that Mr. A. Pease's Wild Birds' Protection Bill, which had been read a first time, might afford an opportunity for extending to the eggs of wild birds the protection at present given to wild birds themselves. In accordance with this suggestion, Mr. W. Noble proposes to move an instruction to the Committee on Mr. Pease's Bill extending the operation of the measure to birds' eggs. Meanwhile, the Birmingham Company has announced that the proposed "oological expedition" has been abandoned.

THE Cambridge Medical Graduates' Club are to give a dinner to Sir G. M. Humphry, F.R.S., at the Marlborough Rooms, Regent Street, next Tuesday.

ON Sunday, February 8, a *fête* was held at Naples in honour of the fiftieth anniversary of Prof. Arcangelo Scacchi's Professorship of Mineralogy in the University of that city. The large hall of the apartments of the Royal Academy was crowded by delegates from all the Universities of Italy, as well as some foreign ones. Nearly every scientific institution of Italy, and not a few institutions of other nations, were represented. The Geological Society of London and the Mineralogical Society of Great Britain had deputed Dr. Johnston-Lavis to convey their congratulations to the eminent mineralogist, who on that day attained the age of eighty-one years. Prof. A. Scacchi was deeply touched by the numerous speeches, and especially by that of the Mayor of Gravina di Puglia, where the Professor was born, and where a true hero worship has sprung up around his name. A large gold medal, bearing on one side the head of the veteran man of science, and on the other a suitable inscription, was presented to him, together with a beautiful illuminated parchment executed by Mr. L. Sambon. Much credit is due to the committee, and especially to Profs. Bassani and Oglialoro, the Secretary and Treasurer, for the succcess of the celebration. A pamphlet will be printed containing a biography of Prof. A. Scacchi, a list of his works, an account of the celebration, and the different congratulatory letters, telegrams, and speeches on the occasion; and a copy will be sent to each subscriber. Prof. A. Scacchi has resigned the Chair of Mineralogy, and his son, a promising young investigator, Prof. Eugenio Scacchi, takes his place in the University of Naples.

THE French scientific journals record the death of M. Jacques Armengaud, well known as an engineer, and formerly a professor at the Conservatoire des Arts et Métiers. He was the author of some important technological works.

The interesting ethnographical collections brought by M. Charles Rabot from Siberia are now being exhibited in Paris.

The veteran botanical explorer, Mr. C. G. Pringle, has brought back from Mexico a collection of about 20,000 specimens of plants, among which he believes there are a large number of new and rare species.

A Society of the Natural Sciences for the West of France is being founded at Nantes, under the auspices of the Director of the Museum of Natural History in that town. Its objects embrace the encouragement of the study of zoology, botany, geology, and mineralogy in the west of France, in connection with the Museum of Natural History at Nantes. It is intended to hold a meeting of the Society every month, and to publish a *Bulletin*, the first number of which is to appear in July.

On Tuesday evening Lord E. Hamilton asked the First Lord of the Treasury whether his attention had been drawn to Mr. Elliott's invention for the annihilation of smoke, now on view on the Thames Embankment; and whether it was the intention of the Government to give the invention a trial, with a view to the possibility of taking some steps to abate the smoke nuisance in the metropolis. Mr. W. H. Smith, in reply, said he was not personally acquainted with the apparatus in question, but he was informed by the Metropolitan Police, whose duty it was to enforce the Acts relating to the smoke nuisance in the metropolis, that smoke had been observed to issue from the chimney on the Thames Embankment, from which it might be inferred that the apparatus was not at all times successful.

The February number of the *Kew Bulletin* opens with an interesting paper on Ipoh poison of the Malay peninsula. In Java the Upas tree furnishes a very effective arrow poison; and, finding the same tree on the mainland, the Malays used its juice. Here, however, the juice is innocuous; and, according to Griffith, the defect is remedied with arsenic. The writer in the *Bulletin* says that "if this is really done it must be when the arrows are prepared, for two authentic specimens of Ipoh poison from the Malay peninsula were absolutely inert, and contained none of the poisonous principle antiarin." This article is followed by instructive papers on Kath or Pale Cutch, the production of cane-sugar in the sugar-cane, timber of Yoruba-land, phylloxera, the botanical station at Lagos, and the mealy bug at Alexandria. Along with the February number, Appendix I. for 1891 is issued. It consists of a list of such hardy herbaceous annual and perennial plants as well as of such trees and shrubs as matured seeds under cultivation in the Royal Gardens, Kew, 1889. These seeds are available for exchange with colonial, Indian, and foreign Botanic Gardens, and with regular correspondents of Kew. The seeds are for the most part available only in moderate quantity, and are not sold to the general public.

At the last meeting of the scientific committee of the Royal Horticultural Society, the Rev. W. Wilks showed specimens of the injuries observed on shoots of peach-trees which were in contact with galvanized wire during the recent severe frost. The shoots at the point of contact with the wire were apparently blackened and frozen through, so that the distal part of a shoot, although for a short time it retains its healthy appearance, shortly dies of starvation. Similar illustrations have been before the committee on other occasions. At the same meeting Prof. F. Oliver displayed a number of water colour drawings showing the effect of fog on the leaves and flowers of various plants; but he reserved a full statement of his observations till a future time.

Mr. T. S. Brandegee will publish, in the Proceedings of the Californian Academy of Science, the results of his recent botanical explorations in California.

MM. Porta and Rigo have returned from their botanical expedition to Spain, in which they were greatly hindered by the extraordinarily wet weather in the Peninsula last summer. Their chief explorations were in Murcia, and in the neighbourhood of Carthagena and Alicante; they have discovered some new species, and others previously unknown in Europe.

A biological station will be opened in summer at the Plöner See, in East Holstein; and in view of the importance, scientific and practical, of the investigations which are to be carried on in connection with it, the Prussian Government has consented to set apart for it an annual grant during the next five years. Many private subscriptions have also been promised.

An interesting case of the evidence of the northern and eastern extension of the Gulf Stream in Arctic regions is quoted in the *Times* of the 12th inst. A message inclosed in a bottle which was thrown, on July 3, 1890, from the s.s. *Magnetic* off the Westmanna Islands, lying to the south of Iceland, has just been returned to the writer in Liverpool, the bottle having been picked up in the Nufsfjord, Lofoden Islands, by the s.s. *President Christie*, on January 15. The bottle drifted 890 nautical miles in six months and a half.

Mr. H. C. Russell has published the results of meteorological observations made in New South Wales during 1888. There is a considerable reduction in the bulk of the volume for this year, as the details referring to rainfall are published in a separate work. The mean temperature of the whole colony for the past eighteen years is 61°·2, and the mean for the past year is 62°·3, or 1°·1 in excess of the mean. Anemometers are now erected at six stations, and show that at the inland stations the amount of wind recorded is little more than one-third of the amount shown by the Sydney record. The results of rain and river observations for 1889 show that the year was a very favourable one: the average rainfall for the whole colony for 1889 was 29·25 inches, being 21·7 per cent. above the average, obtained from the mean of all the complete records for the year. The number of volunteer observers is now 960, and Mr. Russell states that the interest in rainfall records is rapidly increasing. In addition to the meteorological observations published in these volumes, a complete system of weather telegraphy is maintained; two weather maps are issued daily, containing observations from eighty stations.

The Hunterian Oration was delivered by Mr. Jonathan Hutchinson, F.R.S., last Saturday, in the theatre of the Royal College of Surgeons. Mr. Hutchinson drew a very interesting parallel between Aristotle and Hunter. That they exhibited great differences he admitted; and some of these he pointed out. He contended, however, that where the two men met on common ground they showed similar habits of thought, and intellectual powers not very unequal. Both were systematic and enthusiastic zoologists, in times when the study of zoology was the pursuit of very few. Both saw clearly that advance in natural history knowledge could be made only by the collection of facts, and, realizing that such advance was well worth the effort, both set themselves zealously to work. "It is probably not possible," said Mr. Hutchinson, "to mention a third name which can be placed in any sort of competition with either in respect to originality of effort in this direction. It has been asserted, by one well able to form an opinion in this matter, that between Aristotle and the German Kant no metaphysician of original power appeared. In like manner we might say, in reference to scientific zoology, that there was no one between Aristotle and John Hunter. There were, of course, many who made meritorious efforts with more or less success, but none whose achievements can in the least compare with Aristotle's account of the parts of animals or with John Hunter's museum. During the long twenty centuries that were passed through between these two men, there did not appear anyone so capable of applauding Aristotle's work as Hunter—not one who would have contemplated Hunter's preparations with more true interest than Aristotle. Nor must we, in admitting Hunter's inferiority in scope of attainment, forget the great difference in their occupations. Aristotle, although the son of a doctor, did not practice physic himself, and he was throughout liberally provided with funds. During the most prosperous part of his career, his pupil, Alexander the Great, not only supplied him with money, but collected specimens for him in distant lands—a zealous collector of specimens, as has been remarked by Sir Alexander Grant. Never before or since was the endowment of research on so liberal a scale. It is only justice to our own countryman to remember that no such fortune had fallen to his lot. He had to earn every pound that he expended in zoological science in the practice of a toilsome profession, to which also he was compelled to devote the better half of his thoughts. He, like many other devotees of science, was under the compulsion to earn a livelihood in other pursuits—a position not wholly unlike that of the Jews of old, who rebuilt the walls of Jerusalem with a trowel in one hand and a sword in the other."

At the Royal Academy of Lyncei on December 18, Signors Sella and Oddone gave an account of some researches on the distribution of magnetism in certain regions on the Alps. They have found a number of magnetic foci, and record that the rocks which present distinct magnetic properties are magnetite, serpentine, diorite, melaphyre, and syenite. A magnetic rock was observed by Signor Sella on Punta Giufetti, in the Monte Rosa group, and, as it presented traces of fusion on its surface, as if it had been struck by lightning, it is suggested that this circumstance has endowed the rock with its magnetic properties.

We are glad to see that the Natural History Museum at South Kensington has recently received some valuable additions. The skeleton of a whale, never before seen in this country, has been brought from the Behring Sea. The only places where this whale (*Rhachianectes glaucus*) is now found are in the northern parts of the Pacific and in the Sea of Kamtschatka; but the animal is supposed to have had a far wider range than this in consequence of the fossil remains of this species (or a nearly identical one) having been discovered in Norway and Sweden. Among other additions are pieces of amber, 600 in number, inclosing beetles, insects, and even some small lizards.

From the official report of the Japanese census, taken on December 1, 1889, it appears that the number of houses in the whole of Japan is 7,840,872, and the total population 40,702,020. The above population divided according to classes gives the following results: nobles and their families, 3,825; old military class, 1,993,637; common people, 38,074,558. These figures, compared with the census taken in 1888, show an increase of 38,046 houses, and of 464,786 persons. Statistics of ages are also given, and from them it appears that at the close of 1889 there were 65 persons who had attained their hundredth year in Japan; 45 their hundred and first year; 13 their hundred and second year; 11 their hundred and third year; 1 his hundred and fourth year; 9 their hundred and fifth year; 3 their hundred and sixth year; 1 his hundred and seventh year; and 1 his hundred and ninth year. The cities and prefectures having populations of over a million numbered 15, that of Tokio being given at 1,138,546, but this includes not only the city but also a considerable administrative area around.

During the present season an attempt is to be made to extend our knowledge of the wild tribes inhabiting the borderland of Burmah, between Bhamo and the Chinese frontier on the one hand, and between the Northern Shan States and the Chinese frontier on the other. Lieutenant Daly, Superintendent of the Northern Shan States, and Lieutenant Eliott, Assistant Commissioner, will spend the greater part of the next six months exploring these regions. The former will have with him an escort of fifty men of the military police, and will be accompanied by Mr. Warry, of the Chinese Consular Service, and Lieutenant Renny Tailyour, of the Survey Department. He starts from Lashio, and will visit the States on the Salween, including the important State of Kyaingyanyi, and will then return along the supposed Chinese border, ascertaining its situation as accepted on the spot, and the nature of the country and the tribes inhabiting it. Mr. Eliott will start from Bhamo, and will be accompanied by Major Hobday, of the Survey Department. These officers also will be supplied with an escort of military police. They will probably proceed up the right bank of the Irrawaddy to the bifurcation of the river, and then will cross and examine the country on the Chinese border on the left bank. The country is practically unknown at present, and it is expected that much information of an interesting nature will be collected by the exploring parties. The explorers will, of course, confine their attention to the British side of the border, and when the time comes for the formal demarcation of the frontier by a joint Commission of Chinese and British officials, the information now to be collected will, no doubt, prove useful.

A further paper upon azoimide or hydrazoic acid, N_3H, is published by Prof. Curtius, of Kiel, in conjunction with Herr Radenhausen, in the new number of the *Journal für praktische Chemie*. It will be remembered that in the earlier work upon this remarkable substance, a full account of which will be found in Nature, vol. xlii. p. 615, the free azoimide was obtained as a gas by the action of sulphuric acid upon the sodium salt N_3Na. It was not found possible to collect the gas in the anhydrous state, owing to its great affinity for water. Since the publication of the first communication, however, an improved method of preparing the solution of the acid in water by distilling a soda solution of the hippuryl compound with dilute sulphuric acid has been discovered, and the details of this process were described in Nature, vol. xliii. p. 21. In the present communication to the *Journal für praktische Chemie*, Prof. Curtius and Herr Radenhausen make the important announcement that they have at length succeeded in isolating pure anhydrous azoimide itself. They find that it is only a gas at temperatures above 37°C., at which temperature, under ordinary atmospheric pressure, it condenses to a clear, colourless, and very mobile liquid of phenomenally explosive nature. The liquid possesses the intolerable odour of the gas and the aqueous solution. It is readily miscible with either water or alcohol. It was obtained by the successive fractionation of the concentrated aqueous solution, the first fraction being condensed separately and refractioned. On repeating this process four times, an acid containing over 90 per cent. of N_3H was obtained. The last traces of water were finally completely removed by means of fused calcium chloride. The anhydrous liquid, when one is fortunate in carrying out a distillation in safety, is found to boil constantly without decomposition at + 37° C. But it explodes with extraordinary violence when suddenly heated, or when touched with a hot body, and also most erratically sometimes without apparent provocation at the ordinary temperature, with production of a vivid blue flame. It unfortunately explodes in the Torricellian vacuum at the ordinary temperature, thus preventing the determination of its density by Hofmann's method. The explosion of a quantity weighing only 0·05 gram was sufficient to completely pulverize the apparatus, the mercury being driven in fine particles into every corner of a large laboratory. Upon a subsequent occasion a quantity of the liquid amounting to no more than 0·7 gram suddenly exploded upon merely removing the tube containing it from the freezing mixture in which it had been immersed. Such was the force of this explosion that every glass vessel in the vicinity was completely shattered by the concussion, and it is a matter of great regret that Herr Radenhausen was seriously injured by it. As regards the relative strength of the acid, Prof. Ostwald, who has made determinations of its conductivity, finds that it is a little stronger than acetic acid. In reply to the recent suggestion of Prof. Mendeleeff that the ammonium salt of azoimide, N_3NH_4, might possibly undergo an isomeric change analogous to the conversion of ammonium isocyanate into urea, it is shown that this is not the case. The ammonium salt is a substance crystallizing in beautiful large prisms which possess the property of continually diminishing in size and eventually of entirely disappearing, owing to spontaneous sublimation. Neither sublimation nor boiling with water effect any change of constitution whatever.

THE additions to the Zoological Society's Gardens during the past week include a Red Deer (*Cervus elaphus* ♀), British, presented by Mr. C. J. H. Tower, F.Z.S.; six Night Herons (*Nycticorax griseus*), European, presented by Mr. A. A. van Bemmelen; a Spotted Eagle Owl (*Bubo maculosus*) from South Africa, presented by Mr. Julius Wilson; a Redwing (*Turdus iliacus*), British, presented by Mrs. J. B. Capper; two Yellow-throated Rock Sparrows (*Petronia petronella*) from Africa, deposited; seven Knots (*Tringa canutus*), two Bar-tailed Godwits (*Limosa lapponica*), European, purchased.

OUR ASTRONOMICAL COLUMN.

VARIABILITY OF THE ANDROMEDA NEBULA.—The January number of the *Monthly Notices of the Royal Astronomical Society* contains a note by Mr. Isaac Roberts, entitled "Photographic Evidence of Variability in the Nucleus of the Great Nebula in Andromeda." Between 1885 and 1890 a dozen photographs of this object were taken on several plates; and especially on three negatives taken with exposures of 5, 15, and 60 minutes in December 1890, the nucleus of the nebula has a decidedly stellar appearance. Other plates, exposed for both short and long intervals of time, show no trace of a stellar nucleus. It may therefore reasonably be inferred that the nucleus of the nebula is variable.

ECCENTRICITIES OF STELLAR ORBITS.—In the current number of *The Observatory* Dr. T. J. J. See points out that the arithmetical mean eccentricity of 50 of the best stellar orbits hitherto computed is 0·5, while the mean eccentricity for the orbits of the planets of our system is less than one-tenth of this fraction. A discussion of binary systems has led the author to the conclusion that the great eccentricities observed have been developed by the continual action of tidal friction. The elongated forms of most stellar orbits, and the relatively large mass-ratio of the components of a system, are so different from the orbits and relative masses in the solar system that "the development of the solar system seems to have been an exception and not the rule. From these considerations the writer would venture the opinion that investigators of cosmogony who have looked upon the solar system as typical of the general process of cosmic development, and proceeded therefrom to investigate stellar evolution in general, have pursued an erroneous path."

A NEW NEBULA NEAR MEROPE.—Mr. E. E. Barnard, of Lick Observatory, contributes a note "On the Nebulosities of the Pleiades, and on a New Merope Nebula," to *Astronomische Nachrichten*, No. 3018. Whilst examining the Pleiades on November 14, 1890, Mr. Barnard discovered a new and comparatively bright round cometary nebula close south and following Merope. Since this date the nebula has been observed several times and its position determined. The reason why such a comparatively bright object has never been photographed is that the exposure which it would require to impress itself upon the photographic plate would over-expose Merope so much that the light of the two would coalesce.

NAMES OF ASTEROIDS.—Dr. Palisa has given the following names to asteroids discovered by him last year:—

(290)	Bruna,	discovered	March	20,	1890.
(291)	Alice,	,,	April	25,	,,
(292)	Ludovica,	,,	,,	,,	,,
(295)	Theresia,	,,	August	17,	,,

THE BRITISH MOSSES.[1]

I.

I CANNOT lay the following paper before the readers of NATURE without repeating an apology which I addressed to my audience at the Royal Institution on this subject. I can make no pretence to speak with authority; I speak only as a learner who has devoted to the subject some leisure from amidst avocations of a very different kind. But the pleasure I have derived from the study, the sense, whenever I am in the country, that I am surrounded with a world of variety and beauty of which I was formerly only dimly conscious, and the hope of communicating some of this pleasure to others may, I hope, furnish some apology for my venturing to speak on the subject.

Classification.—Without entering into any question as to the best classification of the mosses, or the relative systematic value of the different groups, the following table, which is arranged in an ascending rank, will be sufficient to show the position of the mosses in the vegetable kingdom, and the principal groups into which they may be divided:—

TABLE A.

		Series.	Orders.	Examples.
Vascular Cryptogams				
Muscineæ	i. Musci	Pleurocarpæ		Hypnum
		Acrocarpæ	Stegocarpæ	Polytrichum
			Cleistocarpæ	Phascum
		Anomaleæ	Schizocarpæ	Andræa
			Holocarpæ	Archidium
	ii. Sphagnaceæ			
	iii. Hepaticeæ	Jungermanniaceæ		
		Marchantiaceæ		
Algæ, &c.				

From this table it will be gathered that the mosses, using that word in its wide signification, stand at the head of the cellular cryptogams, and that above them are the vascular cryptogams, of which the ferns are one of the best-known groups. From these vascular cryptogams the mosses are, however, separated by a distance which Goebel has described as a chasm "the widest with which we are acquainted in the whole vegetable kingdom."

From the table it will be further seen that the larger group of the Muscineæ divides itself into three principal smaller groups: the Hepaticæ or liverworts, the Sphagnaceæ or turf mosses, and the Musci or true mosses—urn-mosses, as they have been called, from the form of their capsule. Passing over the other subdivisions, it may be observed that the Acrocarpous mosses are those which carry their capsules at the end of the axis of growth, whilst the Pleurocarpous mosses bear their fructification on stalks, more or less long, proceeding from the sides of the axis. Amongst these Pleurocarpous mosses occurs the old (broken up by modern systematists into several genera) genus Hypnum, the largest of all the genera in these islands or in Europe—a vast group which occupies amongst mosses something like the place which the Agarics occupy amongst the Fungi.

Number of British Species.—If we were to try and ascertain the number of the British Muscineæ from the systematists of some few years ago, like Hooker and Wilson, the species would number between 500 and 600; but according to the views of more recent writers, the number would probably rise to something between 800 and 900. The true mosses are the most numerous, the turf-mosses by far the fewest.

Date of Flora.—What is the date of this moss flora of Britain? Three ancient collections enable us to give some

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[1] The substance (with omissions and additions) of a Discourse by the Right Hon. Lord Justice Fry, delivered at the Royal Institution, January 23, 1891.